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November 18, 1997

Ms. Magalie Salas
Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

RE: EX PARTE PRESENTATION -- WT Docket No. 97-82
Broadband PCS Installment Payment Restructuring

Dear Ms. Salas:

NextWave Telecom Inc.

Please enter the attached "Institutional Strategy Report" by the Gilder Technology Group in the record of the above-captioned proceeding. Although this report does not address issues in this proceeding directly, it bears on such issues and, since NextWave Telecom Inc. is distributing it within the Commission, we are submitting it for inclusion in the record out of an abundance of caution.

In accordance with Section 1.1206 of the Commission's rules, an original and two copies of this filing are being submitted to you today. Please direct any questions concerning this matter to me or Elizabeth Mackie at 202-347-2771.

Respectfully submitted,

Michael R. Wack
NextWave Telecom Inc.

Attachment

cc w/attach: Commissioners
Commissioners' Assistants
Wireless Telecommunications Bureau

GILDER TECHNOLOGY RESEARCH

Vol I No 5 6 November 1997

Institutional Strategy Report

The Carriers' Carriers

In today's world of specialization, it is not at all surprising that in the telecommunication industry there are specialists as well. From transcontinental backbone to local loop, the industry is fragmented into a large number of companies who provide different levels of service. There are shifting alliances and potential mega-deals in the news regularly. To a large degree, this volatility reflects the importance and high stakes of the game.

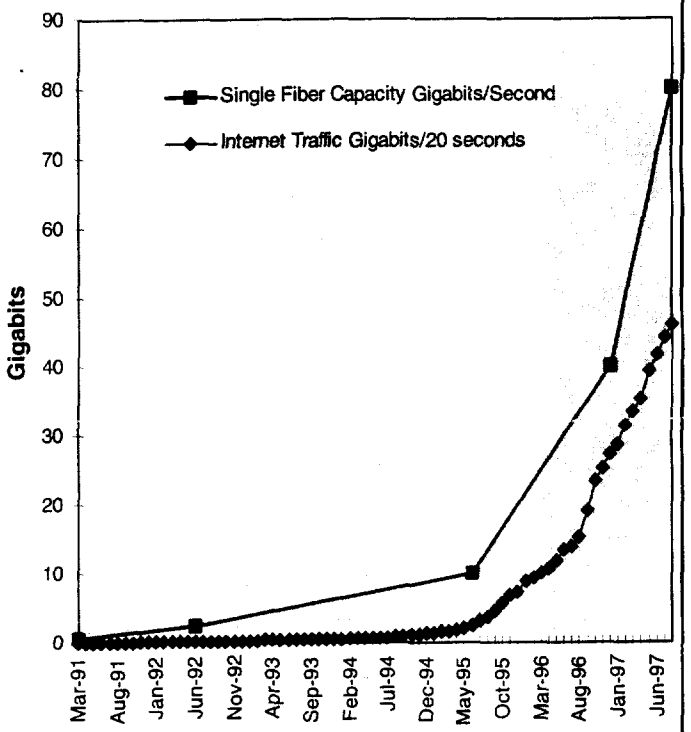
The world's telecommunications system is near capacity. With the nearly exponential growth of the Internet, and the increasing demand for high speed data transfer, e-mail, audio and video, and e-commerce, current capacity could be outstripped soon. While the technologies exist to increase bandwidth, the question of who will successfully employ these technologies remains unanswered. The companies who control the infrastructure, the carriers'carriers, are increasingly critical. A carriers' carrier operates by offering bandwidth to a broad range of resellers. These can include telcos, Internet Service Providers (ISPs), utilities, cable TV operators, and wireless providers. A carriers' carrier does not generally market directly to consumers, but attempts to sell large amounts of time to branded resellers, who in turn sell to the public. This is a high volume strategy and can be implemented successfully only by building a low cost, efficient network. These networks can be wired, or wireless.

The type of networks that these companies are building will expand enormously the existing capacity of the telecom system. Using new types of fiber provided by companies such as **Lucent** (LU) and **Corning** (GLW) and employing the latest technology, Wavelength Division Multiplexing (WDM), which allows 8, 16, or more data streams on each fiber strand, these fiber highways will have hundreds of times more capacity than current networks. Many parts of the world, however, will not see fiber optic networks because of the high cost of installation. And this increased capacity may only keep pace with demand. Internet traffic alone is doubling every year. Wireless systems are being constructed to augment and in some cases even compete with wired networks.

While there are the major players in telecommunications–including **WorldCom** (WCOM), **AT&T** (T), **MCI** (MCIC), and **Sprint** (FON)–among the lesser known companies in the business of providing the telecom infrastructure for the world there are a few standouts: **Qwest Communications International** (QWST) is one. Qwest is a Denver-based company which is in the process of building a high quality, high speed, high capacity nationwide fiber optic network.

Chart 1

Internet Traffic and Fiber Capacity



The sharp change of slope in the fiber capacity curve is explained by the introduction of Wavelength Division Multiplexing (WDM) which allows many data streams to be transmitted along a single fiber strand. See archived report of September 29th.

While this is a highly competitive arena , the need for these services and resources is indeed great, and successful players will be rewarded. The bidding wars for MCI may be just the beginning as telcos and equipment suppliers jockey for position, form alliances, and acquire other players. The Market is not unaware of these shifts and rumblings, and seems to have an increasing stake in these companies. Although earnings have fallen from a year earlier, Qwest has been well received by investors, with a successful IPO, and debt issues of $250 million, and $350 million within the last six months. The share price has risen steadily, from its June 24 issue at $22, to $68 recently, and is currently at $54. Qwest's market capitalization is currently over $5.5 billion. Revenues for the quarter ended September 30th 1997 totaled $188.9 million. This compares with $44.3 million for the quarter ended September 30th 1996. Earnings were $12.7 million or $0.12 per share. Qwest is definitely being viewed as part of the solution to the bandwidth crisis.

Qwest describes itself as a "facilities-based provider of telecommunications services to interexchange carriers and other communications entities, and to businesses and consumers . . ." It is therefore a carriers' carrier, and constructs and installs fiber optic networks and leases network space to other carriers as well as providing services for its own retail customers.

Qwest was formed as a spinoff from **Southern Pacific Railroad**, and owns valuable nationwide rights-of-way. This provides the necessary routes (as much as 85%) for the proposed Qwest network. Other rights-of-way are either leased or purchased. The sale of dark fiber along the route of the Qwest network further reduces the company's net cost per mile. This advantage, together with the state-of-the-art network being constructed puts Qwest in a very competitive position in a fast growing market. This network will connect 135 cities with 16,000 miles of fiber optic cable, and is projected to be completed by the second quarter of 1999. This coverage represents nearly eighty percent of long distance traffic in the US. The network will also be extended south some 1400 miles to Mexico City. It is currently only about one eighth completed overall but is claimed to be on schedule and on budget. Qwest has already amassed contracts worth over $1 billion to supply fiber optic networks to some of the world's largest telecommunications companies, among them **GTE** (GTE), **Frontier Communications**, and WorldCom itself.

The fiber optic network Qwest is building uses a self-healing SONET ring architecture, constructed with the most advanced fiber and transmission electronics available, from Lucent and **Nortel** (NT), respectively. Wave-

length Division Multiplexing supplied by Nortel will increase the number of data streams the network can handle, and each transmission will be sent (using OC-192) at nearly ten gigabits per second. The near-zero dispersion glass fiber being employed insures a vanishingly small error rate. These factors will make Qwest's network not only one of the fastest and most capacious, but also one of the most reliable, a critical consideration given the needs of today's businesses.

Starting with CEO Joseph Nacchio, a former top executive with AT&T, experienced people from companies such as MCI, Lucent, and GTE, among others, have begun to fill the ranks of top executives. Qwest has been strengthening its position by forming strategic alliances and making acquisitions. Qwest has announced a strategic alliance with **Cisco Systems** (CSCO) to create business multimedia services on broadband networks. Cisco Systems supplies important components used in fiber optic networks and adds critical resources to Qwest's efforts to bring an entire range of business services on line, including telephony, fax, videoconferencing, whiteboarding, multicasting, dedicated and virtual networks, and other multimedia applications. This integration will allow all services to flow easily and quickly to the desktop.

An important recent (10/1) acquisition, SuperNet, gives Qwest a presence as an ISP. SuperNet was one of the original National Science Foundation networks that formed the Internet. It has a customer base of over 10,000 business clients, and brings to Qwest technical and marketing talent in network engineering and the Internet. This acquisition serves to diversify Qwest, but also helps build important links to the increasingly important data transmission segment of the telecommunications market. This is the fastest growing segment of a booming market.

A second standout may be **NextWave Telecom**. NextWave operates in the wireless arena and intends to offer low cost minutes of use (MOUs) to branded resellers. NextWave will be exclusively a carrier's carrier and will not offer retail services as Qwest does. Its strategic mission is to create a high quality, nationwide PCS (Personal Communications Services) network. NextWave has purchased at auction PCS licenses representing over 160 million POPs (potential customers) which the company claims is the third largest group of licensed POPs, after AT&T, and Sprint. NextWave has access to the top ten largest US markets and 40 of the top 50.

The cost advantages of a pure carriers' carrier strategy are obvious. Marketing and distribution costs are minimized by leveraging efforts of resellers. NextWave will not need to establish a consumer brand identity, nor acquire and retain retail customers, and will be able to operate in a reduced cost structure. This translates into lower costs at the wholesale level. Costs are also projected to be restrained by a regional organization plan which the company believes will result in operating efficiencies.

NextWave's target markets are similiar to other carrier's carriers, however since wireless telecom services are different from long distance infrastructure providers such as Qwest, there will be some differences. Wireless can be seen as an access, or on and off ramp, to these longer distance networks. Wireless penetration has reached 15 percent in North America and usage is steadily increasing as shown in chart 2.

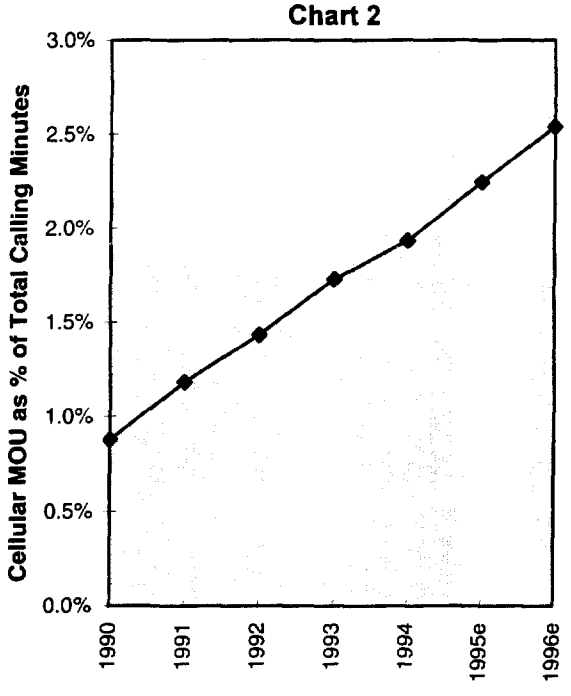


Chart 2 shows wireless minutes of use (MOU) as a percentage of total telephone minutes of use. As wireless pricing diminishes, the elasticity of demand of telephone services will push up usage.

One of the primary sources of competitive advantage for NextWave is its key transmission technology CDMA, or Code Division Multiple Access. This is a winning technology which will provide the highest voice quality, increased capacity, extended battery life, and high security and reliability. These advantages coupled with lower costs will insure that NextWave will be positioned to be very competitive in the rapidly growing wireless market once buildout of the network enables the commercial launch in several key markets in 1998.

Nextwave has been substantially complete in several markets in California, with partial completion in a number of others. These operations are currently in a state of suspension. The buildout is dependent on agreements with the Federal Communications Commission which has granted licenses for the portion of spectrum within which NextWave and other PCS licensees operate. These agreements concern payment amounts and schedules for these licenses and must be reached before transmission in these bands can begin. Agreements with the FCC will be complete by January 1998.

The company has been successful in raising capital (over $600 million) and has financing commitments from **Hughes Network Systems**, Lucent Technologies, **Comdisco** (CDO), and others for up to $1.45 billion for the purchase of infrastructure equipment. The company has not sought public investment at this point. Public confidence in wireless has diminished due to regulatory risks. There also has been a glut of licenses in other parts of the spectrum making any one set of licenses appear less valuable. NextWave's planned IPO was subsequently deferred. Though some of these issues are soon to be resolved, new IPOs in wireless may face difficulties.

One potential windfall for NextWave would be a GTE/MCI merger. With NextWave providing licensed infrastructure, GTE would have access to all top ten markets in the US, and 44 of the top 50. Without NextWave, GTE can only claim a woeful 2 of 10 and 16 of 50. Since MCI owns approximately12% of NextWave, it would presumably look with favor on an agreement between GTE and Nextwave if the merger took place. Whichever partners pair off, the coalescing of this market will indeed be fascinating to behold, and it appears that there will be a place at the table for NextWave.

Table I

Ascendent Technology	Company (Symbol)	52 Week Range	Recent Price (11/6)	Market Cap. ($bil.)	Shares Outstanding	Float (Mil.)
Wave Division Multiplexing (WDM)	Qwest (QWST)	26 3/8 - 68 7/8	54	5.58	103.3 mil.	13.5
WDM, Code Division Multiple Access (CDMA), Silicon Germanium)	Nortel (NT)	57 3/4 - 113 7/8	89	23.3	259.9 mil.	122.1

Gilder Institutional Research